

EXHIBIT R-2, RDT&E Budget Item Justification							DATE: February 2004	
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-6					R-1 ITEM NOMENCLATURE 0604759N Major T&E Investment			
COST (\$ in Millions)		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Total PE Cost		39.851	44.178	39.787	39.457	39.021	40.159	41.817
W2195 T&E Investment		39.851	44.178	39.787	39.457	39.021	40.159	41.817
A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:								
This project improves visibility of Test and Evaluation (T&E) resources across the Service for Major T&E investment funding. These funds correct major deficiencies, improve T&E capabilities, and increase T&E support effectiveness. The T&E Investment project provides support for the Naval Undersea Warfare Center Detachment Atlantic Undersea Test and Evaluation Center (NAVUNSEAWARCEN DET AUTEC), Andros Island, Bahamas; the Naval Air Warfare Center Weapons Division (NAVAIRWARCENWPNDIV), Point MUGU, CA and China Lake, CA; and the Naval Air Warfare Center Aircraft Division (NAVAIRWARCENACDIV), Patuxent River, MD.								

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(U) B. Accomplishments/Planned Program				
		FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost		7.847	4.331	5.150
RDT&E Articles Quantity				
<p>FY03 -NAVUNSEAWARCEN DET AUTC. Continue Instrumentation Component Replacement (ICR) efforts. Complete Radar Systems Improvement efforts. Continue the Off-Board Advanced Systems Stimulator Project. Continue the Underwater Range Data Communications Project. Continue Range Ware Improvement Project.</p> <p>FY04 -NAVUNSEAWARCEN DET AUTC. Continue Instrumentation Component Replacement (ICR) efforts. Complete the Underwater Range Data Communications Project. Continue Range Ware Improvement Project. Continue the Off-Board Advanced Systems Stimulator Project. Initiate AUTC Lightning Protection project.</p> <p>FY05 -NAVUNSEAWARCEN DET AUTC. Continue Instrumentation Component Replacement (ICR) efforts. Continue Range Ware Improvement Project. Continue AUTC Lightning Protection project. Complete Off-Board Advanced Systems Stimulator project.</p>				

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(U) B. Accomplishments/Planned Program			
		FY 03	FY 04
Accomplishments/Effort/Subtotal Cost		16.680	22.975
RDT&E Articles Quantity			21.838
<p>FY03 - NAVAIRWARCENWPNSDIV. Continue to modernize core instrumentation capability. Continue modernization of air traffic control radar processing systems and voice switches to systems that will be compatible with the Federal Aviation Administration (FAA) and Department of Defense (DoD) air control network. Complete a project to assemble and field remote, fixed and mobile telemetry receiving stations to provide full land range coverage required by customers. Continue development of capability to test and evaluate effects and performance of hypersonic penetrators. Continue replacement of remote van equipment, vintage tracking antennas and allow multiple participant operations coverage at San Nicolas Island. Continue to modernize frequency monitoring capabilities at Electronic Combat Range, Land Range, and Sea Range. Continue replacement of obsolete data acquisition and electronic equipment at Skytop facility. Continue moving target launch capability/instrumentation from C130A to C130F. Initiate upgrade of fifth metric radar electronic systems and control consoles and add moving target indicators, automatic calibration and computer controls of chart recorders at San Nicolas Island. Initiate P-3/C-130 Instrumentation Replacement Project. Initiate procurement of Advanced Range Telemetry Program (ARTM) equipment. Initiate upgrade to gather, distribute, record/store and perform post test data analysis with Digital Video.</p> <p>FY04 - NAVAIRWARCENWPNSDIV. Continue to modernize core instrumentation capability. Complete modernization of air traffic control radar with integration of new R-2508 surveillance radar. Complete development of capability to test and evaluate effects and performance of hypersonic penetrators. Complete replacement of remote van equipment, vintage tracking antennas and allow multiple participant operations coverage at San Nicolas Island. Continue to modernize frequency monitoring capabilities at Electronic Combat Range, Land Range, and Sea Range. Complete replacement of obsolete data acquisition and electronic equipment at Skytop facility. Complete moving target launch capability/instrumentation from C130A to C130F. Complete upgrade of fifth metric radar electronic systems and control consoles and add moving target indicators, automatic calibration and computer controls of chart recorders at San Nicolas Island. Continue P-3/C-130 Instrumentation Replacement Project. Complete procurement and integration of Advanced Range Telemetry Program (ARTM) equipment. Continue upgrade Land, Sea, and ECR Range's video capabilities. Initiate procurement and integration of new voice system for the Sea Range. Initiate upgrade of target control pedestals. Initiate modernization of Land range communication infrastructure.</p> <p>FY05 -NAVAIRWARCENWPNSDIV. Continue to modernize core instrumentation capability. Complete modernization of frequency monitoring capabilities at Electronic Combat Range, Land Range, and Sea Range. Initiate upgrade of sixth metric radar electronic systems and control consoles and add moving target indicators, automatic calibration and computer controls of chart recorders. Continue with P-3/C-130 Instrumentation Replacement Project. Complete upgrade of Land, Sea, and ECR Range's video capabilities. Continue procurement and integration of new voice system for the Sea Range. Continue upgrade of target control pedestals. Continue modernization of Land range communication infrastructure. Initiate Service Life Extension Program of fifth FPS-16 radar system. Initiate replacement of VHF, UHF, and HF radio transmitters at the ECR, Land, and Sea Ranges. Initiate the replacement of the mobile radio communications system in compliance with current FAA mandates.</p>			

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(U) B. Accomplishments/Planned Program <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr> <th style="width: 30%;"></th> <th style="width: 15%;"></th> <th style="width: 15%;">FY 03</th> <th style="width: 15%;">FY 04</th> <th style="width: 15%;">FY 05</th> </tr> <tr> <td>Accomplishments/Effort/Subtotal Cost</td> <td></td> <td style="text-align: center;">14.924</td> <td style="text-align: center;">16.872</td> <td style="text-align: center;">12.799</td> </tr> <tr> <td>RDT&E Articles Quantity</td> <td></td> <td></td> <td></td> <td></td> </tr> </table> <div style="margin-top: 20px;"> <p>FY03 - NAVAIRWARCENACDIV. Continue to modernize core instrumentation capability. Continue replacement of aging Telemetry acquisition and processing equipment. Complete replacement and upgrade of obsolescent image generators and video display systems at the Manned Flight Simulator facility. Complete development of full-spectrum dynamic avionics and aircraft signature measurement system. Complete replacement of obsolete data collection system with new collection and distribution system. Complete modernization of the Range Control Center display systems. Complete procurement of hardware to monitor radio frequency (RF) environment and responses in real-time for installed test facility. Complete integration and support replacement of high-speed film cameras with Airborne Separation Video System. Continue integration of analog National Television Systems Committee (NTSC) video with digital systems based on industry and Advanced Television Systems Committee formats. Initiate upgrade universal radar moving target transponder to support all Navy radar systems. Initiate upgrade of mechanical/machining capabilities. Initiate a development of a High Cycle Fatigue (HCF) Test Capability. Initiate upgrade for semi-automatic and video reader capabilities under the Next Generation Video Project.</p> <p>FY04 - NAVAIRWARCENACDIV. Continue to modernize core instrumentation capability. Complete replacement of aging Telemetry acquisition and processing equipment. Continue integration of analog National Television Systems Committee (NTSC) video with digital systems based on industry and Advanced Television Systems Committee formats. Complete upgrade of universal radar moving target transponder to support all Navy radar systems. Continue upgrade of mechanical/machining capabilities. Continue a development of a High Cycle Fatigue (HCF) Test Capability. Continue upgrade for semi-automatic and video reader capabilities under the Next Generation Video Project. Initiate procurement and integration of communication and security equipment required to support operations within the Advanced Systems Integration Laboratory (ASIL) MILCON. Initiate modernization and upgrades to the existing radar cross section pedestals.</p> <p>FY05 -NAVAIRWARCENACDIV. Continue to modernize core instrumentation capability. Complete integration of analog National Television Systems Committee (NTSC) video with digital systems based on industry and Advanced Television Systems Committee formats. Complete upgrade of mechanical/machining capabilities. Complete development of a High Cycle Fatigue (HCF) Test Capability. Complete upgrade for semi-automatic and video reader capabilities under the Next Generation Video Project. Complete procurement and integration of communication and security equipment required to support operations within the ASIL MILCON. Continue modernization and upgrades to the existing radar cross section pedestals. Initiate procurement of fibre channel bus monitoring and stimulation capability. Initiate encryption/modernization of down range video capability. Initiate and complete voice communications system for Atlantic Test Range.</p> </div>							FY 03	FY 04	FY 05	Accomplishments/Effort/Subtotal Cost		14.924	16.872	12.799	RDT&E Articles Quantity				
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(U) B. Accomplishments/Planned Program				
		FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost		0.400		
RDT&E Articles Quantity				
<p>-Joint Modeling and Simulation System (JMASS). Efforts to develop a tri-service simulation infrastructure that will assist model developers, engineers, and analysts in the development of digital models, configuration and execution of simulations and analysis of simulation capabilities.</p>				

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(U) C. PROGRAM CHANGE SUMMARY:

	FY 2003	FY 2004	FY 2005
(U) Funding:			
Previous President's Budget:	41.473	43.908	45.737
Current BES/President's Budget	39.851	44.178	39.787
Total Adjustments	-1.622	0.270	-5.950
Summary of Adjustments			
Congressional program reductions			
Congressional undistributed reductions		-0.498	
Congressional rescissions			
SBIR/STTR Transfer	-0.011		
Economic Assumptions			0.089
Reprogrammings	-1.611	0.768	
Reprioritization			-6.039
Other Adjustments			
Congressional increases			
Subtotal	-1.622	0.270	-5.950

(U) Schedule:
Not Applicable.

(U) Technical:
Not Applicable.

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<p>D. OTHER PROGRAM FUNDING SUMMARY:</p> <table border="1"> <thead> <tr> <th><u>Line Item No. & Name</u></th> <th><u>FY 2003</u></th> <th><u>FY 2004</u></th> <th><u>FY 2005</u></th> <th><u>FY 2006</u></th> <th><u>FY 2007</u></th> <th><u>FY 2008</u></th> <th><u>FY 2009</u></th> <th><u>To Complete</u></th> <th><u>Total Cost</u></th> </tr> </thead> <tbody> <tr> <td colspan="10"> <u>Related RDT&E:</u> (U) PE 0605759F: Test and Evaluation (Air Force) (U) PE 0605864N: Test and Evaluation (Navy) </td> </tr> </tbody> </table>											<u>Line Item No. & Name</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>To Complete</u>	<u>Total Cost</u>	<u>Related RDT&E:</u> (U) PE 0605759F: Test and Evaluation (Air Force) (U) PE 0605864N: Test and Evaluation (Navy)									
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<p>E. ACQUISITION STRATEGY:</p> <p>Not Applicable.</p>																														

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